The effect of training status on muscle energy metabolism in young males

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Mitochondrial capacity measured using different, non-invasive techniques can be used to analyse mitochondrial capacity in future studies

Ethische beoordeling	Positief advies
Status	Werving nog niet gestart
Type aandoening	-
Onderzoekstype	Observationeel onderzoek, zonder invasieve metingen

Samenvatting

ID

NL-OMON22088

Bron
NTR

Verkorte titel
MCAP

Aandoening

Ageing, Sarcopenia, Mitochondrial Function

Ondersteuning

Primaire sponsor: prof. dr. Jaap Keijer
Wageningen University and Research
Human and Animal Physiology

Overige ondersteuning: NWO

Onderzoeksproduct en/of interventie

Uitkomstmaten

Primaire uitkomstmaten

The primary objective of this study is to measure mitochondrial capacity using NIRS in order to verify if NIRS can be used to analyse differences in training status in a normal student population.

Toelichting onderzoek

Doel van het onderzoek

Mitochondrial capacity measured using different, non-invasive techniques can be used to analyse mitochondrial capacity in future studies

Onderzoeksopzet

Cross-sectional study design

Onderzoeksproduct en/of interventie

Cross-sectional study design in which subject will be selected on training status.

Contactpersonen

Publiek

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Wetenschappelijk

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Deelname eisen

Belangrijkste voorwaarden om deel te mogen nemen (Inclusiecriteria)

• 18-28 year old male

• BMI 18.5-25 kg/m2

• VO2max ≤ 47 mL/kg/min or VO2max ≥ 57 mL/kg/min

• Performed a valid VO2max test (In order for the test to be considered valid two out of three of the following conditions should be met: 1) The maximal heart rate is within 10 beats of the predicted maximum (220 – age) 2) A plateau in in VO2 was reached; VO2 fails to increase with 150 mL/min, despite an increase in work load 3) Respiratory exchange ratio (RER) ≥ 1.00 has been achieved) and is has a

Belangrijkste redenen om niet deel te kunnen nemen (Exclusiecriteria)

• Health concerns regarding respiratory and pulmonary diseases, such as COPD, (exercise induced) asthma and cardiovascular disease.

• (known symptoms of) Metabolic diseases, such as type I or II diabetes,

• Regular smoker (defined as smoking >5 cigarettes per week)

• Haemoglobin concentrations below 8.0 mmol/L

• Recent usage (within four months) of supplements with suggestive training effects, such as creatine phosphate, EPO or anabolic steroids.

• Usage of recreational drugs, such as marihuana, amphetamines and cocaine during the study (starting after first screening day)

• Suffers from (sport) injury that hampers maximal exercise performance

• Blood donation during the course of study

• Current participation in other clinical trials

• Employed or undertaking a thesis or internship at the department of Human and Animal Physiology

Onderzoeksopzet

Opzet

Type:	Observationeel onderzoek, zonder invasieve metingen
Onderzoeksmodel:	Anders
Toewijzing:	Niet-gerandomiseerd
Blindering:	Enkelblind
Controle:	N.v.t. / onbekend

Deelname

Nederland

Status:	Werving nog niet gestart
(Verwachte) startdatum:	01-09-2017
Aantal proefpersonen:	16
Type:	Verwachte startdatum

Ethische beoordeling

Positief advies

Datum:	26-05-2017
Soort:	Eerste indiening

Registraties

Opgevolgd door onderstaande (mogelijk meer actuele) registratie

ID: 45254
Bron: ToetsingOnline
Titel:

Andere (mogelijk minder actuele) registraties in dit register

Geen registraties gevonden.

In overige registers

Register	ID
NTR-new	NL6296
NTR-old	NTR6470
CCMO	NL60823.081.17
OMON	NL-OMON45254

Resultaten